

## Introduction: prize lectures and reviews

*Philosophical Transactions of the Royal Society B: Biological Sciences* usually publishes Theme Issues on a dedicated topic or papers from the presentations given at the Royal Society's discussion meetings. However, this issue is a departure from that convention in that it comprises a collection of the Royal Society's Prize Lectures that have not been published elsewhere. We hope that the publication of these valuable lectures will bring them to an even wider audience than usual, and also provide a complete historical record of these major biological presentations. They appear with only light editing to preserve the distinctive style of the lecturers.

The papers in this issue reflect the wide range of the Society's Prize Lectures. The Croonian Lecture, established in 1709, is the premier lecture in the biological sciences, dating from a scheme left by Dr Croone and first delivered in 1738 upon the bequest of his widow. The two lectures in this issue have been written by Ron Laskey (2005) and John Krebs (2005). The Ferrier Lecture, established in 1928 and given triennially on the structure and function of the nervous system, perpetuates the memory of Sir David Ferrier and his pioneer work on the functions of the brain. (Cowey 2005; Zeki 2005). The Leeuwenhoek Lecture (1948), founded by a bequest from Mr George Gabb for an annual lecture in the field of microbiology, was named after the Dutch microscopist Anton von Leeuwenhoek (Dalton 2005). The Bernal Lecture (1969), given triennially on some aspect of the social function of science, was endowed by Professor J. D. Bernal (Crumpton 2005). The Medawar Lecture (1985), established by Council following an anonymous bequest for the institution of a triennial lecture in honour of Sir Peter Medawar, is given in the philosophy of science or some other field in accord with Sir Peter's interests (Gregory 2005; Lipton 2005; Wolpert 2005).

Following the recent death of Francis Crick it came to my attention that he had been working on his more recent passion, human consciousness, right until the last. Correspondence with Christoff Koch led to the completion of their final paper which is included in this special issue (Crick & Koch 2005). This is followed by four unsolicited reviews (Guillery 2005; Oldfield 2005; Schwartz *et al.* 2005; Smithson 2005) which are always welcomed for consideration by the Editor. Similarly, ideas for Theme Issues are also encouraged and all contributions are peer reviewed to a high standard. More information on how to submit ideas for Theme Issues and review papers is available from the Editorial Office (Publishing Department, The Royal Society, 6–9 Carlton House Terrace, London SW1Y 5AG, UK)

I would very much like to take this opportunity to thank most warmly my predecessor, Professor Semir Zeki, whose splendid work has greatly strengthened the

international status of the journal. His decision to take the step of shaping the Theme Issues towards the neurosciences was well judged. After consultation with the Editorial Board we aim to build on this past success and so welcome reviews and Theme Issues, normally in five areas: cognitive systems (e.g. neurobiology, behaviour, psychology), molecules of life (structural biology, cell biology, genomes, gene function), systems biology (complexity of life, populations, evolution), environment (sustainability, biodiversity, food, anthropogenic effects), health and welfare (preventative and therapeutic strategies, infectious diseases, nutrition) and occasional topics on regional science (China, India, Canada, Australasia, Japan, South East Asia, Africa). Once a year we intend to publish a special issue compiled from reviews submitted by the Royal Society's University Research Fellows to parallel those published in our sister journal, *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*.

I hope you enjoy reading through this special issue and find these papers as fascinating as I have.

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